

Claims

1. A device-to-device authentication system for authenticating a device on a home network connectable to an external network via a router, characterized by comprising:
5 local environment management means for confirming whether or not another device accessing to said device on said home network is present on said home network.
- 10 2. The device-to-device authentication system according to claim 1, characterized in that:
one of said devices is a home server for legitimately acquiring contents, whereas the other of said devices is a client for making a request for said contents to said home
15 server for use;
wherein, in response to confirmation of presence of both devices on said same home network, said home server provides said contents and/or issues a license for said contents to said client.
- 20 3. The device-to-device authentication system according to claim 1, characterized in that:
two or more home servers are able to be installed on said home network;
25 wherein each of said home servers provides said contents and/or issues a license for said contents to said clients that is confirmed to be present on said same home network.
- 30 4. The device-to-device authentication system according to claim 3, characterized in that:

said client is able to receive provision of said contents and/or issuance of said license for said contents from said two or more home servers on said same home network.

- 5 5. The device-to-device authentication system according to claim 3, characterized in that:

 said client is able to use said contents acquired from a plurality of home servers on said same home network, and, upon connection to a home server on an other home network,
10 said client is not able to use said contents acquired from said home servers on said home networks other than said other home network.

6. The device-to-device authentication system according to claim 1, characterized in that:

 said local environment management means confirms whether or not a request-source device of access is present on said same home network based on whether or not a MAC address of said request-source device is identified or non-identified
20 with a MAC address of a router set as a default gateway.

7. The device-to-device authentication system according to claim 1, characterized in that:

 said local environment management means confirms
25 whether or not each of said devices is present on said same home network based on whether or not each of said devices shares the same identification information regarding said home network.

- 30 8. The device-to-device authentication system according to claim 7, characterized in that:

each of said devices acquires a MAC address of said router set as a default gateway as identification information regarding said home network; and

whether or not each of said devices is present on said
5 same home network is confirmed based on whether or not each of said devices has a MAC address of said same default gateway.

9. The device-to-device authentication system according to claim 7, characterized in that:

10 a local environment management apparatus for supplying network identification information is installed on said home network; and

each of said devices acquires a MAC address of said local environment management apparatus as identification
15 information regarding said home network; and

whether or not each of said device is present on said same home network is confirmed based on whether or not each of said devices has a MAC address of said same local environment management apparatus.

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10. A device-to-device authentication method for authenticating a device on a home network connectable to an external network via a router, characterized by comprising:

a local environment management step of confirming
25 whether or not another device accessing to said device on said home network is present on said home network.

11. The device-to-device authentication method according to claim 10, characterized in that:

30 one of said devices is a home server for legitimately acquiring contents, whereas the other of said devices is a

client for making a request for said contents to said home server for use;

wherein, in response to confirmation of presence of both devices on said same home network in said local
5 environment management step, said home server provides said contents and/or issues a license for said contents to said client.

12. The device-to-device authentication method according
10 to claim 10, characterized in that:

two or more home servers are able to be installed on said home network;

wherein each of said home servers provides said contents and/or issues a license for said contents to said
15 clients that is confirmed to be present on said same home network.

13. The device-to-device authentication method according to claim 12, characterized in that:

20 said client is able to receive provision of said contents and/or issuance of said license for said contents from said two or more home servers on said same home network.

14. The device-to-device authentication method according
25 to claim 12, characterized in that:

said client is able to use said contents acquired from a plurality of home servers on said same home network, and, upon connection to a home server on an other home network, said client is not able to use said contents acquired from
30 the said home servers on said home networks other than said other home network.

15. The device-to-device authentication method according to claim 10, characterized in that:

in said local environment management step, whether or
5 not a request-source device of access is present on said same home network is confirmed based on whether or not a MAC address of said request-source device is identified or non-identified with a MAC address of a router set as a default gateway.

10 16. The device-to-device authentication method according to claim 10, characterized in that:

in said local environment management step, whether or
not each of said devices is present on said same home network is confirmed based on whether or not each of said devices
15 shares the same identification information regarding said home network.

17. The device-to-device authentication method according to claim 16, characterized in that:

20 in said local environment management step, each of said devices acquires a MAC address of said router set as a default gateway as identification information regarding said home network; and

whether or not each of said devices is present on said
25 same home network is confirmed based on whether or not each of said devices has a MAC address of said same default gateway.

18. The device-to-device authentication method according to claim 16, characterized in that:

30 a local environment management apparatus for supplying network identification information is installed on said home

network; and

in said local environment management step, each of said devices acquires a MAC address of said local environment management apparatus as identification information
5 regarding said home network; and

whether or not each of said device is present on said same home network is confirmed based on whether or not each of said devices has a MAC address of said same local environment management apparatus.

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19. A communication apparatus for operating on a home network connectable to an external network via a router, characterized by comprising:

local environment management means for confirming
15 whether or not another device accessing via a home network connected said communication apparatus is present on said same home network.

20. The communication apparatus according to claim 19,
20 characterized in that:

said communication apparatus operates as a home server for providing contents on said network; and

wherein said communication apparatus further comprises content-provision means for providing said contents and/or
25 issuing a license for said contents only to a device confirmed to be present on said same home network by said local environment management means.

21. The communication apparatus according to claim 19,
30 characterized in that:

said communication apparatus operates as a client for

making a request for contents to a home server for use on said network;

wherein said communication apparatus further comprises content-using means for receiving provision of said contents
5 and/or issuance of a license for said contents only from a home server confirmed to be present on said same home network by said local environment management means.

22. The communication apparatus according to claim 21,
10 characterized in that:

two or more home servers are able to be installed on said home network;

wherein said content-using means receives provision of said contents and/or issuance of a license for said contents
15 only from two or more home servers confirmed to be present on said same home network by said local environment management means.

23. The communication apparatus according to claim 21,
20 characterized in that:

said content-using means is able to use said contents acquired from a plurality of home servers on said same home network, and, upon connection to a home server on an other home network, said client is not able to use said contents
25 acquired from the said home servers on said home networks other than said other home network.

24. The communication apparatus according to claim 19, characterized in that:

30 said local environment management means confirms whether or not a request-source device of access is present

on said same home network based on whether or not a MAC address of said request-source device of accessing is identified or non-identified with a MAC address of a router set as a default gateway.

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25. The communication apparatus according to claim 19, characterized in that:

said local environment management means confirms whether or not each of said devices is present on said same
10 home network based on whether or not each of said devices shares the same identification information regarding said home network.

26. The communication apparatus according to claim 25,
15 characterized in that:

said local environment management means acquires a MAC address of said router set as a default gateway as identification information regarding said home network; and
whether or not a device on other side of communication
20 is present on said same home network is confirmed based on whether or not said device on other side of communication has a MAC address of said same default gateway.

27. The communication apparatus according to claim 25,
25 characterized in that:

a local environment management apparatus for supplying network identification information is installed on said home network; and

said local environment management means acquires a MAC
30 address of said local environment management apparatus as identification information regarding said home network; and

whether or not a device on other side of communication is present on said same home network is confirmed based on whether or not said device on other side of communication has a MAC address of said same local environment management apparatus.

28. A computer program described in a computer-readable format so as to execute a process for authenticating a device, on a home network connectable to an external network via a router, on which a home server for legitimately acquiring contents from said external network and a client for making a request for said contents for use are present, said computer program characterized by comprising:

a local environment management step of confirming whether or not said home server and said client are present on said home network; and

a content-provision step of providing said contents and/or issuing a license for said contents to said client by said home server in response to confirmation of presence of both said devices on said same home network in said local environment management step.